

Das Nomen im Indogermanischen



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Anatolian Nominal Stems in *-(C)o-

H. Craig Melchert

0. Introduction

An exhaustive survey of all thematic derivatives in Anatolian is neither possible nor necessary here. The focus in what follows will be first of all on identifying previously overlooked examples of suffixes that originated in secondary derivatives in *-ó-, followed by an attempt to distinguish primary and secondary uses of the suffixes *-mo- and *-lo-. Finally, I will briefly address, but make no pretense of solving, the problem of the relationship of “primary” and “secondary” nominal derivation in early PIE, especially with regard to the suffix *-tó-.

1. Secondary Derivatives in *-ó-

1.1. Secondary Derivatives in *-h₂-ó-

There is an established pattern of secondary possessive derivatives in *-ó- from collectives in *-eh₂: a Paradebeispiel is Skt. *rátha-* = Av. *raθa-* ‘chariot’, substantivized with accent retraction from a **rot-h₂-ó-* ‘possessing wheels’ ← **rot-eh₂-* ‘set of wheels’ (attested in the singular Lat. *rota* ‘wheel’). See LIV²:507 n. 1 et al.

Hitt. *ḫimma-* (com.) ‘imitation, replica’ is clearly related to Lat. *imāgō* ‘image’ (Neumann apud Oettinger 1976:64). The Latin supposes a **h₂im-eh₂-* (Oettinger, loc. cit.), but the Hittite geminate *-mm-* must reflect an assimilated cluster (with Kloekhorst 2008:344). Kloekhorst’s own **h₂im-no-* is formally possible, but unsupported. I suggest rather a derivative **h₂im-h₂-ó-* ‘possessing the image (of)’, likewise substantivized (probably also with accent retraction) to ‘copy, replica’, from the **h₂im-eh₂-* whose existence is required by the Latin. The assimilation of **-VRHV-* > *-VRRV-* is regular in Hittite (Melchert 1994:79, following Schindler), but the appearance of an example for **-VmHV-* is welcome.

With Jeremy Rau (email of 20 July 2005) I derive in a similar fashion Hitt. *palzašḫa/ palzahḫa-* /paltsxa-/ (com.) ‘pedestal, pediment’ from a virtual **pl₂th₂sh₂o-*, via a chain **pléth₂o/es-* ‘breadth’ (notably attested in Skt. *práthas-* ‘breadth, extent’) → **pl₂t(h₂)-s-ó-* ‘broad’ → **pl₂t(h₂)-s-éh₂-* ‘breadth’ → **pl₂t(h₂)-s-h₂-ó-* ‘broad, that which has breadth’. For the basic idea see also Oettinger (1979:372 n. 235) and Kloekhorst (2008:624). As always, not all the steps in the given derivational chain are necessarily real for this or any other particular example.

The existence of the *s*-stem **pléth₂o/es-* in Skt. *práthas-* does make it unlikely that the suffix in this word is *-šḫa-*, as per Puhvel (2011:84), but the latter’s comparison of other Hittite and Luvian words with a unitary suffix *-(a)šḫa-* is surely correct. That is, the derivational pattern posited by Rau is the starting point for the productive Luvo-Hittite suffix, on which see Starke (1979). The suffix is originally *denominative* (contra Starke): see Luv. *iparwašḫa-* (a bird of augury) ← **iparwa-* ‘westerly’ (with Puhvel 1984:375); Hitt. *luliyášḫa-* ‘swamp, marsh’ ← *luliya-* ‘pertaining to a *lūli-* = pond, lake’ (the *iya-* adjective is directly attested at KUB 27.13 iv 21, contra CHD:L–N,80–81!); Luv. ^(NA₄)*marruwašḫa-* (a mineral) ← **marwa-* ‘dark’ < **morg^w-o-* with Neumann (1973:298; contra Kloekhorst 2008:562 the verb *maruwāi-* is denominative from the same source); Hitt. *tešḫa-* ‘dream’ from a virtual **dheh₁sh₂o-* ‘possessing the divine’ (Byrd 2011).

Some of the denominative examples were open to reanalysis as deverbative: Luv. *maliyašha-* ‘approval’ ← *māli-* ‘thought’ (see CHD:L–N,128) was also interpretable as derived from *mali-/malai-* ‘to think’ (source of the secondary Hittite stem *malāi-* ‘to approve’; Starke 1979:251); Hitt. *nuntariyašha-* ‘timeliness’ ← *nuntariya-* (adj.) ‘quick, timely’ was reassignable to the denominative verb *nuntariya-* ‘to be quick, timely’; CLuv. *palhašha-* ‘breadth’ ← **palha-* ‘broad’ was reanalyzable as derived from the denominative verb *palhā-* ‘to flatten, spread out’.

Hence there developed a secondary use as a deverbative suffix to form action/abstract nouns: Hitt. *armuwalašha-* ‘moonlight’ ← *armuwalā(i)-* ‘to shine (of the moon)’, *ḫarnamniyašha-* ‘rebellion, revolt’ ← *ḫarnamniya-* ‘to ferment, foment’, *kariyašha-* ‘acceding’ ← *kariya-* ‘to accede’, *tariyašha-* ‘exertion, exhaustion’ ← *tar(a)i-* ‘to exert, exhaust oneself’, *unuwašha-* ‘adornment, ornament’ ← *unu(wa)-* ‘to adorn’; HLuv. /wasxa-/ ‘purchase, sale’ < **we/os-sh₂o-* ‘pledge (in exchange)’ ← **wes-* ‘to pledge (in exchange)’, later ‘to buy/sell’ (Melchert 2011).

Further support for a denominative origin comes from Lyc. *-(i)s-*. Contra Melchert (1989:29–30 et alibi) this Lycian suffix is *not* cognate with the Luvian adjectival suffix *-(i)zza-*. Rather with Eichner apud Borchhardt, Eichner et al. (1997–99:82–83) Lyc. *-(i)s(e)-* forms *abstract nouns*: *wazzis-* refers to an office ‘X-ship’ (but the nominal base is not **wasaz-*, but rather *wazz-* seen in the personal names *Wazala-*, *Waz(z)ije-*, and *Wezeimi-*; Melchert 2004:78). Similarly, we find *azis-* ‘X-ship’ beside *azzala-* ‘decree’ (or sim.); also with Eichner, loc. cit., *Trm̄mis-* ‘Lycia’ (originally ‘Lycian-hood’) beside *Trm̄mili-* ‘Lycian’ (ultimately ← *Attarimma*, as per Carruba 1964/65:286–288 and Eichner 1983:64–66); *Arñnas-* ‘territory of Xanthos’ ← *Arñna-* ‘Xanthos’, *Ijānis-* ‘Ionia’; probably also *arus-* ‘citizenry’ from a base **arowo-* ‘free person’ matching Hitt. *arawa-* ‘free’. For the phonology **-sh₂o-* > Lyc. *-s-* compare Lyc. *wasaza-* = HLuv. /wasxatsa-/ (*wa/i-sa-haza-*) ‘(kind of) priest’ from a virtual **wos-sh₂o-tyeh₂-* ‘one dedicated (to a deity)’. The usual Lycian syncope of the stem-vowel in final syllables in **-Cos/m* leads to a synchronic stem in *-s-* (NSg *arus*, ASg *arusñ*, *wazzisñ*) with a special locative singular in *-e* (*azise*, *wazzise*).¹

1.2. Secondary Derivatives in **-mn-o-*

The enduringly popular derivation of Luvo-Lycian participles in *-mma/i-* ~ *-me/i-* from a PIE medio-passive participle in **-mo-* or **-meno-/mh₁no-* must be rejected, contra Forrer (1922:222), Sommer (1947:66), Kronasser (1966:179–180), Kammenhuber (1969:264), et al. Also misguided was my attempt in Melchert (1983:23–25), where I sought to uphold the equation with the non-Anatolian material by denying a specific medio-passive participle **-mh₁no-*. Despite the peculiar shape of the suffix, the preform **-mh₁no-* of Klingenschmitt (1975:161–163) best accounts for the sum of the evidence: see the discussions of Mayrhofer (1986:130–131), Meier-Brügger (2000:174), and Weiss (2009:437), among others.

As already argued by Oettinger (1986a:35 n. 119), connection of the Luvo-Lycian suffix with medio-passive **-mh₁no-* (or **-mo-*) is impossible on functional grounds: the latter is processual in meaning, while the Luvo-Lycian participles express an attained state. The latter are also *unmarked* for voice: they are usually passive for transitive verbs, but express merely an attained state for intransitives. Luv. *awimma/i-* means ‘(having) come’, never

1 Just which case ending lies behind the locative in **-e* is hard to determine: a locative in **-oi* seems most straightforward functionally and is possible phonologically, but an allative in **-o* < **-ō* < **-oh₂* or a dative in **-ōi* cannot be excluded. The main point is that *-e* preserves a trace of the originally thematic inflection.

*‘coming’, CLuv. *aiyamma/i-* ‘made’, never *‘being made’, HLuv. */uwamma/i-/* ‘having drunk’, never *‘drinking’ or ‘being drunk’. They are thus entirely parallel to Hittite participles in *-ant-*, which they clearly replace. See relics like CLuv. *ulant(i)-* and Lyc. *lāta-* ‘dead’ (NB *not* ‘dying’!).

Derivation from a simple suffix **-mo-* in any function is also contradicted by the frequent geminate *-mm-* in CLuvian (pace Kronasser 1966:180). A rough count shows a ratio of circa 100 : 90 for *-mm-* : *-m-*, and frequent alternations like *šarlaim(m)a/i-* ‘exalted’ and *dūpaim(m)a/i-* ‘struck’ show that the *-m-* spellings are merely defective for *-mm-*.

The Luvo-Lycian participles in *-mma/i-* ~ *-me/i-* (with “*i*-mutation” as per Starke 1990: 54–85) originate rather in secondary possessive adjectives in **-mn-o-* to verbal nouns in **-men-*: thus *‘having the action of X’ = ‘having (been) X-ed’. E.g., HLuv. */tatariyamma/i-/* ‘(ac)cursed’ (attested in NSgC (LOQUI)*ta-tara/i-ia-mi-sa* at KARKAMIŠ A2+3 §24) could be built on the base noun seen in CLuv. *tatariyamman-* ‘curse’. Once again, this example is merely illustrative of the original derivational process. Most attested examples of the participle are surely by reanalysis derived directly from the verbal stem, including probably the example given, from */tatariya-/* ‘to curse’.

This account, versus all others, explains directly the appearance and productivity of the *-mma/i-* participle precisely in Luvo-Lycian, since base verbal nouns in *-mman-* are only productive there (see Starke 1990:243–299, esp. 245). Verbal nouns in **-men-* in Hittite are highly recessive: there is just one arguable direct example ^{NINDA}*šarā-man-* ‘bread ration’, *‘rows of loaves’ ← **šarā(i)-* ‘to line up’ (Harry Hoffner, p.c.). There are also a very few remodeled examples in *-mar/-mman-*: *alpuemar* ‘horn-tip’ < *‘tapering, sharpening’ ← **alpu-* ‘be sharp’, *tiyamar* ‘binding’ ← *tiya-* ‘to bind’ (see already on these Melchert 1983:14–15). It is an open question whether *harnamar* ‘leavening’ is native Hittite or back-formed from the Luvian stem *harnamman-* (thus Starke 1990:286–288). For a prehistoric alteration of some *men-* stems to stems in **-en-* see Melchert (2007/08[2011]).²

By a trivial widespread process, the Luvo-Lycian participial suffix is also used to form possessive adjectives from nouns (cf. English ‘bearded’, ‘fated’; Hitt. *nadānt-* ‘possessing a drinking straw’; etc.). Thus we find CLuv. *pihamma/i-* (= HLuv. */pihamma/i-/*) and *pihaimma/i-* ‘imbued with splendor/might’ ← *piha-* ‘splendor/might’ (there is *no* justification for an entirely fictitious denominative verb, contra Starke 1990:314 n. 1089 and Hawkins 2000:106), also in Lycian PN *Pixñma-* ‘the splendid/mighty one’ (= Πιγμοος); HLuv. (PANIS)/*mallidimma/i-* ‘honied’ ← */mallid-/* ‘honey’. Naturally, some examples are ambiguous: CLuv. *kaluttaimma/i-* ‘marked with circles’ may be directly from a noun *kalutt(i)-* ‘circle’ or an unattested **kalutti/ai-* ‘to mark with circles’; likewise Hluv. */maratamma/i-/* ‘cursed’ ← */marata/i-/* ‘command, injunction’ or **/marati/ai-/* ‘to enjoin, curse’.

1.3. Secondary Derivatives in **-h_{1/3}n(H)-o-*

Contra Brosch (2008:49) at least the “Herrschersuffix” **-Hno-* is assured for Anatolian by Hitt. *Tarhunna-* ‘Storm-god’ beside Luvic *Tarhunt-* (see Watkins 1999:14). Compare *mutatis mutandis* Lith. *Perkūnas*, Lat. *Neptūnus*, etc. Whether the title of the Hittite queen *tawananna-* contains the same suffix (Puhvel 1989:360 and Melchert 2003:20) is uncertain: a compound with *anna-* ‘mother’ is equally possible.

2 Contra Melchert (1983:2–3) ^{NINDA}*šarāman-* ‘bread ration’ has *nothing* to do with the adverb *šaramnaz* ‘from above’. The latter is thus more likely an adjective in **-mn-o-* (with Forssman 1965), parallel to Gk. *πρῶμνός* ‘prominent’ etc. For some genuine denominative *men-* stems in Anatolian, often with locative sense, see Melchert 1983 *passim*.

Nothing stands in the way of the assumed assimilation **VHRV* > *VRRV*. No case of attested Hittite or Luvian *-VhRV-* clearly reflects inherited **-VHRV-*: see the discussions of Kimball (1999:401–402) and Kloekhorst (2008:539–540 and 776–777). Against the account of Hitt. *šuhmili-* ‘firm, well-fastened’ by Catsanicos (1986) see also now Steer (2008: 143–144).

Whether or not one equates the “Herrschersuffix” with the “Hoffmann-Suffix” (see e.g. Pinault 2000:85 and 92ff. and Olsen 2004, esp. 242–243), there is a separate open question whether there is a suffix *-(V)nna-* with possessive semantics in Anatolian. Examples thus far are suggestive, but hardly compelling: Luv. *hudarlanna/i-** ‘slave-owner, slave overseer’ ← *hudarlā-* ‘slave’ (attested in a *kārum*-text as the personal name *Hu-dar-lá-ni* of a slave overseer; see Carruba 1992:251–252 with a different but unlikely morphological analysis); CLuv. *ittaranna/i-* ‘courier’ < **‘having the way’* ← **ittar* ‘way’ (after Starke 1990: 502, but the base is more likely **h₁i-tro-* than an *r/n*-stem); *:kantanna-* (a topographical feature) perhaps ‘wheat-field, **‘having/full of wheat’* ← *kant-* ‘wheat’; *Kummayanna/i-* ‘endowed with the sacred’ (name of a spring; thus with Starke 1987:250 n. 26). Note that by the analysis of Olsen (2004), the Hoffmann suffix represents **-h₃nh₂-o-*. In that case the geminate here could then possibly be due to the *following* laryngeal. I regard the status of a thematized Hoffmann suffix in Anatolian as indeterminate.³

2. Secondary Derivatives in **-Co-*

2.1. Primary and Secondary Derivatives in **-mo-*

There are some examples of both primary and secondary **-mo-*, distinct from **-mn-o-*. We find inherited **torh₁-mo-* ‘peg, nail’ in Hitt. and CLuv. ^(GIS)*tarma-* ‘peg, nail’ (animate) = Gk. τόρμος ‘socket; peg’ < **tor(h₁)-mo-* (Catsanicos 1986:168, Kimball 1999:381 and Kloekhorst 2008:845). The primary suffix is productive in Hittite only in the class of deverbative nouns in *-e/ima-*: *tethima-* ‘thunder’ (for older **tithima-*) < *titha-* ‘to thunder’, *lalukkema-* ‘radiance’ < *lalukke-* ‘to shine’, etc. on which see Oettinger (2001).

What I wish to emphasize here is the existence of previously unrecognized deverbative and denominative examples in Luvian, where *animate* nouns with a *single -m-* cannot be analyzed as substantivized participles or remade neuter nouns in *-mman*, contra Starke (1990:254, 269 and passim).

Deverbative examples include at least CLuv. *lalāma/i-* ‘receipt’ ← *lala-* ‘to take, receive’, *dušduma/i-* ‘manifest; voucher’ ← **du-šdu-* ‘to make/become known’ (after Carruba 1970:85), *arraḥḥaniyama/i-** (attested in Hittitized NSg *arraḥḥaniyamaš*) ← *arraḥḥaniya-* ‘?’ (a negative action). Also probably belonging here is ^{NINDA}*niniyama/i-* ‘spiral/twisted bread’ ← **nini-* ‘turn, twist’ (with Starke 1990:332–333, but as a noun, not a substantivized participle).

There are also some denominative adjectives, usually substantivized as animate nouns (distinguishable from examples of possessive denominative *-mma/i-* cited above by both their *appurtenance* sense and consistent single *-m-* in CLuvian): HLuvian */tiwad/rama/i-/*

3 The same remark applies to the Hoffmann suffix itself. The derivation by Eichner 1974:64 of the western Anatolian word for ‘god’ (CLuv. *maššan(i)-*, Lyc. *mahāna-* etc.) from a virtual **meh₁s-(o)s-h₃on-* ‘having free will’ (~ Lat. *mōs* ‘habit, custom’) is attractive, but far from assured. His similar account (1983:62–64) of Lyc. *Elijāna-* ‘water nymph’ < **ali-(h₃)on-* **‘having water’* cannot be upheld in its stated form, since the alleged CLuv. *†āli-* ‘sea’ does not exist, but only an adjective *ala/i-* ‘high; deep’ with “*i*-mutation” (Melchert 1993b:6, after Watkins). Structurally, an epithet with the possessive suffix remains likely, with a base perhaps cognate with the poorly attested CLuv. *alli-* or *aliya-* (see Melchert 1993b:11).

‘belonging to the Sun-god’ ← /tiwad-/ ‘Sun-god’ (thus after Arbeitman 1980:10; no verb ‘enseleiller’ is necessary, contra Laroche 1960:101 and Starke 1990:148); CLuv. ^{LÜ}*maššanāma/i-* = HLuv. /massanama/i-/ ‘god-inspired priest/seer’ (DEUS-*na-mi-i-sa* TELL AHMAR 6 §22 & CORNU+CAPUT-*mi-i-sa* TELL AHMAR 5 §11; see Hawkins apud Bunnens 2006:27); *huiipama/i-* ‘act of cruelty’ (or sim.) ← **huiipa/i-* ‘cruel’ (attested in Hitt. *huiipi-* ‘cruel’); *ipatarma-* ‘west’ (a compound with *tarma-* ‘nail’, as per Puhvel 1984:376, is not credible) and *pašattarma-* ‘swallowing’ (the syntactic analysis by Starke 1990:495 is totally impossible). The last two examples are more likely from intervening stems in **-tro-* than in **-t₁/-tn-*, contra Starke (1990:495 and 504). We should probably also put here CLuv. ^{LÜ/MUNUS}*ānninniyama/i-* ‘cousin’, but the status of the base **ānninniya-* remains unclear. Some of the examples cited could also be underlyingly substantives from the start.

2.2. Primary and Secondary Derivatives in **-lo-*

Already well-established are Hittite denominative adjectives and substantives in *-ala-* < **-ólo-*: *liššiyala-* ‘of the liver, ominous’ ← *lišši-* ‘liver’, ^{LÜ}*ašušāla-* ‘ring-man’ ← *ašūša-* ‘ring’, ^{LÜ}*išpantuzziyala-* ‘libation-server’ ← *išpanduzzi-* ‘libation(-vessel)’. The use of such adjectives to refer to functionaries associated with various objects leads to the use of *-ala-* as a quasi-agentive suffix. Via ambiguous examples like *genzuwala-* ‘merciful, of mercy’ ← *genzu-* ‘mercy’ beside *genzuwalā(i)-* ‘be merciful’ was formed also the rare deverbative *arnuwala-* ‘deportee’ ← *arnu-* ‘remove’. The equally unusual “passive” semantics of this example also reflect the original ‘of, pertaining to’ sense of the **-lo-* suffix. The “agentive” meaning of most examples is merely a result of the fact that the functionary associated with a given object normally had the task of actively manipulating it.

Direct attestation of secondary **-lo-* is not plentiful outside Hittite, but attested in CLuv. *ipala/i-* ‘left(-hand)’ (whatever the etymology of the base). Shared by several western Anatolian languages is **ser-ló-* ‘upper’, attested in HLuv. /sarla/i-/ ‘upper’ (SUPER+RA/I-la/i-) and Lyc. *serli-/selli-* ‘supreme’ and presupposed by CLuv. *šarlā(i)-* ‘to exalt’ and further derivatives. The Lycian personal name *Xudali-* probably represents an “*i*-mutation” variant of a virtual **h₂uh₁-teh₂-lo-* ‘nimble’ < **‘of haste’* and CLuv. *hutarlā-* ‘servant’ likewise a virtual **h₂uh₁-tro-lo-* (see on the base *hūta-* ‘haste’ and its derivatives Eichner 1983:54ff. and Starke 1990:363ff.). We may now add here as parallel to **ser-ló-* CLuv. **zantala/i-* ‘low(er)’ ← *zanta* ‘down’ in *zantalanu-* ‘demote, erniedrigen’ (Goedegebuure 2010:311–312). There are probably significantly more examples from both Luvian and Lycian, but the meanings and bases of most such stems are too obscure to be analyzable. It is in any case unlikely that there was a productive use specifically of **-ólo-* comparable to that in Hittite.

As per the important demonstration by Rieken (2008:247–253), secondary thematic stems in **-i-lo-* and **-ú-lo-* were reshaped in Hittite to stems in *-īl-* and *-ūl-* (NB the spelling *-ú-ul*) via syncope of **-i/úlos* and **-i/úlom* to **-i/úls* and **-i/úlm* and cluster simplification in Auslaut: *hurkīl-* ‘perversion’ < **h₂w₁rgi-lo-* **‘of turning/twisting’* ← **h₂w(o)rgi-* ‘turning’ (> Hitt. *hurki-* ‘wheel’); *āššūl-* ‘well-being’ (NB *-ú-ul*) < **assú-la-* **‘of the good’* ← *āššu-* ‘good’. Reanalysis of *āššūl-* as derived from *āšš-* ‘be good’ leads to productive deverbative *-ú-ul*: *išhiūl-* ‘treaty’, *waštūl-* ‘sin’, etc. We must thus abandon earlier claims of widespread preservation of archaic *l*-stem inflection in Hittite, contra Benveniste (1935:40–49), Eichner (1973:85 n. 6), Oettinger (1986a:16–17), Starke (1990:301), and Melchert (2001:263).

However, given the lack of syncope in Hitt. *-āla-* seen above (Rieken 2008:251 cites further ^{LÜ}*karimnāla-* ‘temple attendant’), Hittite and Luvian *deverbative* neuter nouns in *-al*

(Hitt. *ardal-* ‘saw’ ← *ard-* ‘to saw’, *išhiyal-* ‘sash, belt’ ← *išhi-* ‘bind’; Luv. **āppal-* ‘trap, snare’ ← *āpp-* ‘seize’ [in Hitt. *āppalā(i)-* ‘to entrap’], *ariyal-* ‘basket’ ← *ariya-* ‘lift’) reflect neither stems in **-el* (Starke 1990:301) nor **-ólo-* (Rieken 2008:250 n. 7), but rather primary **-lo-* with the development **-T-lom#* > **-Tlm#* > *-Tal*, as in Hitt. *šiyattal-* ‘missile’ < **h₁syo-tlom* (see Melchert 1993a, esp. 110–111). Compare for the type **témk-lo-/tḡk-ló-* ‘coagulated matter’ > OIce. *þél*, Skt. *takrá-* ‘buttermilk’; **sed-lo/eh₂-* ‘seat, chair’ > Lat. *sella*, Laconian Gk. *έλλά*, Goth. *sitls*, Gaul. *-sedlon*, etc. We are nevertheless once again dealing with a reshaped thematic **-lo-* suffix—this time primary—not with archaic *l-*stems.

An unsolved problem is the source of the massively productive Luvian secondary denominative suffix *-alla-* (with “*i*-mutation” also *-alli-*): *annalla/i-* ‘maternal’ ← *anna/i-* ‘mother’, *maššanalla/i-* ‘divine’ ← *maššan-* ‘god’, *muwattalla/i-* ‘mighty’ ← *muwatta/i-* ‘might’, *tarpanalla/i-* ‘ritual substitute’ ← **tarpan-* ‘deflection’ or similar, etc. This suffix is also taken into Hittite both directly, as in ^{LU}*appaliyalla-* ‘entrapper’ (to **āppal-* ‘trap, snare’ via an adjective **appaliya-*) and *kappilalli-* ‘inimical’, and in the resegmented suffix *-at(i)alla-* that replaces native Hitt. *-āla-* (^{LU}*ašušattalla-* ‘ring-man’), on which see Oettinger (1986b:43–47). The suffix *-alli-* (with generalization of the “*i*-mutation” variant) was eventually also added to native Hittite bases: ^{DUG}*haršiyalli-* ‘pithos’ ← *harši-* ‘leavened bread’, *haršanalli-* ‘wreath’ ← *haršan-* ‘head’, etc. (Melchert 2005:455).

Derivation of “Hittite” *-alla-* < **-ólo-* with a non-existent gemination after accented short vowel (e.g. Brosch 2008:76) is immediately falsified by *-āla-* with lengthening from **-ólo-* as seen above: note OH/OS *a-šu-ša-a-le-eš/-lu-uš/-la-aš* versus the base *a-šu-ú-ša-an* (KBo 11.36 iv 7).

Luv. *-alla-* may in principle reflect **-élo-* via “Čop’s Law” (Čop 1970). But CLuvian shows the same development of **-ilos/m* and **-úlos/m* to *-il* and *-ul* as Hittite: *ḫantil(i)-* ‘first’ (N-ASgNeut *ḫantil=za*), *dammil(i)-* ‘virgin, uncultivated’, N-ASgNt *dammil* (thus with Hoffner 1997:172–173) < **‘empty’* < virtual **dh(e)n-m-ilo-*; *paršul-* ‘crumb, morsel’ (N-ASg *paršul=za*). As shown by Rieken (2008:243–244), in Hittite **-élos/m* likewise is syncopated to *-ēl* (the source of the pronominal genitive ending!). We must thus predict also for Luvian **-élos/m* > *-al*, with crucially N-ASgNeut *-al(=za)*, not *-allan=za*. This result is probably attested in [*nānun*]tariyāl ‘(of the) present’ (cf. N-APINeut *nānuntariyala*).

More promising is a development as sketched above in §1.1 for **-eh₂-* → **-h₂-o-*: an original derivational chain of adjective in **-o-lo-* → collective in **-o-leh₂-* → possessive adjective in **-o-lh₂-o-* > *-alla-* via the change **VRHV* > *VRRV*, then a productive suffix in the form *-alla-* (as already implied by the account of Rieken 1999:444). This derivation is made awkward by the existence of Luvo-Hittite ^(GIS)*padalḫa-* ‘part of the foot; fetter/clog’ (a Luvian origin is suggested by the derived verb *:patalḫa(i)-* ‘to fetter/clog’), which appears to reflect precisely **-o-lh₂-o-*. Jeremy Rau (email of 20 July 2005) suggests rather derivation of the latter from a root noun, thus **pod-lḫ₂-o-* ← **pod-leh₂-* ‘that which pertains to the foot’ ← **po/ed-lo-* ‘of the foot’. This solution is not implausible in view of the evidence for late survival of the root noun seen in Hittite AccPl *pātu[š]* (MS) vs. GPI *patān* (OS), reflecting an accent alternation (thus Kloekhorst 2008:654). Hitt. ^(TUG)*padalla-* ‘put-tee’ (or sim.) would then represent the later productive use of *-alla-*.

Hitt. ^(GIS)*ḫattalla-* ‘club’ has been taken as deverbative from *ḫatta-* ‘strike’ with a suffix **-dhlo-* by Čop (1966–68:54), but we would expect rather †*ḫattatal-* like *šiyattal-* ‘missile’ above. ^(GIS)*ḫattalla-* is more likely denominative with *-alla-* from the noun **ḫattā-* ‘striking’ (a virtual **h₂(e)t-eh₂-*) seen in Lyc. *xтта-* ‘harm’. For the usual reshaping of PIE **-dhlo-* and **-dhro-* to *-ulli-* and *-utri-* in Hittite see Rieken (2009:151–152).

3. The Problem of “Primary” vs. “Secondary”

It is clear that originally primary (deradical) adjectival suffixes can come to be added to nominal bases and take on a possessive sense: **-tó-* in Lat. *barbātus* ‘bearded’, **-é/ónt-* in Hitt. *nadānt-* ‘having a drinking straw’, and Luvo-Lycian **-mn-o-* in CLuv./HLuv. *piḥamma/i-* = /pihamma/i-/ and *piḥaimma/i-* ‘imbued with splendor/might’ and Lycian PN *Pixḿma-* ‘the splendid/mighty one’ (= Πιγμοος) ← *piḥa-* ‘splendor/might’ cited above.

This development does not exclude that such “primary” suffixes may have begun as “secondary” suffixes to root nouns. On this possibility for **-tó-* see already Brugmann (1896:2/1.394) and for **-é/ónt-* *ibid.* 2/1.459–461. See on **-tó-* also Schwyzer (1953:1.503) and the discussion by Chantraine (1979:302–306, esp. 306). The question has been renewed by the extreme rarity of primary adjectival **-tó-* in Anatolian (see Oettinger 1986a:23). No putative examples of this suffix in Anatolian are truly compelling: Hitt. *āšta(u)war* ‘leftovers’ (Beckman 2010) could reflect a “νόστος-type” noun or an adjective in **-tó-* to *āšš-* ‘remain’. ^{GIS(HUR)}*kurta-* ‘wooden tablet’ may be Luvian (Starke 1990:458) and derived with the productive verbal noun suffix *-(a)tta-* < **-ót-*. Hitt. *mitā(i)-* (Oettinger 1979:377) probably does not mean ‘to fasten’ (see Puhvel 2004:166, Steer 2008:143 n. 7, Kloekhorst 2008:583) and is not derivable from **mī-to-* in any case (Catsanicos 1986:156, Kimball 1999:215). Hitt. *mūtā(i)-* (NB *mu-ú-*) ‘to root up, remove’ perhaps is derived from **múh₁to-* (Eichner 1979:48–50 n. 14), but see Puhvel (2004:194–195) and Kloekhorst (2008:588). Hitt. (or Luv.?) *šūtā(i)-* ‘to fill’(?) hardly can reflect **suh₃-tó-* (cf. Oettinger 1979:377), given the spelling *šu-ú-da-an-zi* (KBo 19.130 i 10) with *ú*. Lyd. *wstaa-* ‘alive’ from **h₂us-tó-* is merely possible. Even if one or two of these examples should prove to be genuine, the contrast with moderately productive denominative **-tó-* in Anatolian is striking (Oettinger 1986a:23, Melchert 1999:368–372).

A decision on the question also involves the issue as to whether verbal adjectives in **-tó-* originated in compounds (thus Chantraine *loc. cit.* after Meillet and more cautiously Schwyzer 1953:1.502) or not (Benveniste 1948:164–167) and the status of compounding in Anatolian, for which see now *in extenso* Brosch (2008). I venture no answer to this question here. I close merely by recalling that the situation is very different for primary and secondary **-o-* (Oettinger 1986a:19): examples like Hitt. *kuera-* ‘field’ < **‘section’* ← *kuer-* ‘cut’ and *gulšša-* ‘fate’ < **‘sketch, plan’* ← *gulšš-* ‘to draw’ with vocalism clearly based on the respective verbs assure a moderate productivity of the “τόμος-type” in Anatolian. Evidence from the other languages supports this conclusion: CLuv./HLuv. *ḥarwa-* = /harwa-/* (VIA-wa/i-) ‘road’ < **h₃órw-o-* ‘thing dug/cut’ to the root of Gk. ὀρύσσω (cf. Lat. *uia rupta*), HLuv. (LINGERE)*ha-sa-* ‘satiety’ to the root of Pal. *ḥaš-* ‘be satiated’, CLuv. *zu-u-wa-* ‘food’ < **gyówh_{1/3}-o-*. Therefore the presence of secondary **-ó-* in **-h₂-ó-* and **-mn-ó-* in Anatolian suggested above is not surprising. Exploration of the status in Anatolian of the “τόμος-type” and of “ṽddhi-derivatives” in **-ó-* must await another occasion.

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